

A transmission apparatus of orthogonal frequency division multiplexing for multiplexing a plurality of carriers orthogonal to one another to transmit a modulated signal. The transmission apparatus comprises a first modulator for outputting a code modulated in accordance a modulation scheme which can be applied with a synchronous detection for demodulation, a second modulator for outputting a code modulated in accordance with a modulation scheme different from the modulation scheme associated with the first modulator, and a distributing circuit for distributing the codes modulated by the first and second modulators to a plurality of carriers. The distributing circuit distributes the code modulated by the second modulator to all or some of carriers existing within a predetermined number of columns from at least one of both end regions of a signal transmission frequency band, and the code modulated by the first modulator to the remaining carriers.